

IN THE CLAIMS:

Please amend claims 1, 10-15, 19 & 20 as follows:

1. (Presently Amended) A sanitary fill valve assembly comprising:

[(a)] a housing having an inlet passage for receiving a viscous flowable material from a viscous flowable material source, an annular chamber for receiving the viscous flowable material from said inlet passage, and an outlet passage from which the viscous flowable material is dispensed;

[(b)] an ON/OFF positive controlled product dispenser for dispensing the viscous flowable material from said chamber; and

[(c)] a product flow regulator having a regulator body extending for longitudinal movement substantially perpendicular relative to said product dispenser, said inlet passage and said outlet passage and across the entire flow area at said inlet passage, said regulator body [for] adjustably regulating the rate of flow of the viscous flowable material into said chamber, ~~said product flow regulator and having a substantially tapered tip portion that combines with a corner sidewall portion of said inlet passage to create a flow passage through which the viscous flowable material flows into said annular chamber being disposed in a direct flow path between said inlet passage and said annular chamber of said housing.~~

2. (Original) The assembly of claim 1, wherein said product dispenser comprises a piston cylinder.

3. (Original) The assembly of claim 2, wherein said piston cylinder includes a main piston body and a piston head disposed at a distal end thereof for dispensing the viscous flowable product from said chamber.

4. (Original) The assembly of claim 3, wherein an annular surface of said housing has a tapered wall adjacent said outlet passage forming a seat for said main piston body.

5. (Original) The assembly of claim 4, further comprising a seal mechanism for positively sealing said piston cylinder in said chamber.

6. (Original) The assembly of claim 5, wherein said seal mechanism comprises a first seal member, a second seal member and a third seal member.

7. (Original) The assembly of claim 6, wherein said first seal member is disposed on said piston head for cleaning-in-place said outlet passage to prevent dripping of the viscous flowable product during dispensation, said second sealing member being disposed intermediate said main piston body and said piston head for positively shutting off flow of the viscous liquid product during dispensation, and said third seal member being disposed adjacent said main piston body for preventing fluid leakage at a basal end thereof.

8. (Original) The assembly of claim 7, further comprising a drive mechanism for actuating said piston cylinder.

9. (Original) The assembly of claim 8, wherein said drive mechanism comprises a pneumatic cylinder.

10. (Presently Amended) The assembly of claim 1, wherein said product flow regulator comprises a regulator body, an adjustment mechanism for selectively displacing said regulator body within said housing between a downward position decreasing the flow area into said chamber and an upward position increasing the flow area into said chamber, ~~first stop means~~ and ~~second stop means~~ for limiting the displacement of said product flow regulator.

11. (Presently Amended) The assembly of claim [8] 10, wherein said adjustment mechanism comprises a threaded screw and an at least one adjustment nut, said threaded screw having a lower end connected to an upper portion of said regulator body and an upper end connected to said at least one adjustment nut, wherein rotation of said adjustment nut and said threaded screw causes to displace said elongated regulator body in a manner which at least one of increases and decreases the flow area at said inlet passage.

12. (Original) The assembly of claim [8] 10, wherein said adjustment mechanism comprises an electric actuator.

13. (Presently Amended) A sanitary fill valve comprising a housing having a flow path adapted to receive and dispense a viscous flowable material; a product dispensing piston disposed for reciprocating movement within said housing to dispense the viscous flowable material therefrom; and an adjustably moveable product flow regulator disposed for longitudinal movement directly across the entire [in] said flow path for adjustably regulating the flow rate of the viscous flowable material by at least one of reducing and increasing the flow area into said chamber to accommodate viscous flowable materials having different

physical properties, said product flow regulator having ~~a pair of~~ stop means for limiting the movement of said product flow regulator.

14. (Presently Amended) A sanitary fill valve comprising: (a) a housing having an inlet passage, an outlet passage and an annular chamber for receiving and dispensing a viscous flowable material; (b) a product dispenser disposed within said chamber and adapted to reciprocate between a first position opening said chamber and a second position closing said chamber to dispense the viscous flowable material therefrom; (c) a pneumatic actuator for displacing said product dispenser between said first and second positions; and (d) a product flow regulator having a regulator body disposed intermediate of said inlet passage and said chamber~~[-]~~ and extending for longitudinal movement substantially perpendicular relative to said product dispenser, said inlet passage, said outlet passage and across the entire mouth of said inlet passage, wherein a distal end portion of said regulator body combines with said inlet passage to form a flow channel at the mouth of said inlet passage through which the viscous flowable material flows into said annular chamber, the width of said flow channel being automatically adjustable to regulate the flow rate of the viscous flowable material before entry into the annular chamber.

15. (Presently Amended) A sanitary fill valve for accommodating viscous flowable materials having different physical properties, said sanitary fill valve comprising:

~~[(a)]~~ a valve housing having an inlet passage for receiving a viscous flowable material from a viscous flowable material source, an annular chamber in communication with said inlet passage, and an outlet passage in communication with said chamber for dispensing the viscous flowable material;

[(b)] a product dispenser disposed within said annular chamber for drawing the viscous flowable material into said chamber and dispensing the viscous flowable material from said chamber;

[(e)] a sealing mechanism for positively sealing said product dispenser within said chamber, wherein said seal mechanism is also adapted to facilitate cleaning-in-place of said outlet passage during dispensation of the viscous flowable material; and

[(d)] a product flow regulator in communication with said inlet passage and said chamber for adjustably regulating the rate of flow of the viscous flowable material into said chamber by reducing and/or increasing a flow area into said chamber, wherein said product flow regulator is positioned in said valve housing such that it reciprocates in directions substantially perpendicular to said product dispenser, said inlet passage and said outlet passage and across the entire flow area at said inlet passage.

16. (Original) The valve of claim 15, wherein said product dispenser comprises a piston cylinder having a main piston body and a piston head disposed at a distal end thereof for dispensing the viscous flowable material from said chamber.

17. (Original) The valve of claim 16, wherein said piston head is provided with a pair of channels on an outer circumferential surface thereof for receiving a pair of seal members.

18. (Original) The valve of claim 17, wherein each of said seal members comprises an O-ring.

19. (Presently Amended) The valve of claim 18, wherein said product flow regulator comprises a cylindrical regulator body disposed adjacent said inlet passage and [a] a regulator actuator for selectively displacing said regulator body between a first position decreasing the flow rate of the viscous

flowable material into said chamber and an second position increasing the flow rate of the viscous flowable material into said chamber.

20. (Presently Amended) A process for hygienically filling a container with a viscous flowable material comprising the steps of:

(a) providing a housing having an inlet, an outlet and an annular chamber for receiving and dispensing the viscous flowable material, then;

(b) pumping the viscous flowable material through said inlet into a said chamber of a housing, then;

(c) providing a flow regulator between said chamber and said inlet and substantially perpendicular in relation to said inlet and said outlet and across the entire flow area at said inlet, then;

(d) adjustably regulating the flow rate of the viscous flowable material at said inlet using said flow regulator based upon the physical properties of the viscous flowable material; and then

(e) dispensing the liquid product by pneumatically operating a drive device for reciprocating said product dispenser to a position closing said chamber.

21. (Previously Amended) The process of claim 20, further comprising the step of providing a seal mechanism for automatically cleaning-in place said chamber during said dispensing step.